



## Two-Dimensional Materials and Beyond: Innovations and Applications in Next-Generation Devices

Guest Editors:

**Dr. Yecun Wu**

Department of Physics, Stanford University, Stanford, CA 94305, USA

**Dr. Baiyang Wang**

Department of Physics, Stanford University, Stanford, CA 94305, USA

Deadline for manuscript submissions:

**closed (30 April 2024)**

### Message from the Guest Editors

Dear Colleagues,

In recent decades, the field of 2D materials, including graphene, hexagonal boron nitride, and transition metal dichalcogenides (TMDs), has gained significant momentum as a promising avenue for next-generation devices. These materials exhibit exceptional properties, such as high carrier mobility, mechanical strength, and tunability through diverse strategies such as gate tunability and strain engineering. As a result, 2D materials offer unprecedented opportunities for the design and fabrication of advanced devices that deliver enhanced performance and functionality across various fields.

This Special Issue encompasses a wide array of topics, including material synthesis, characterization, device fabrication techniques, and device physics, with a particular focus on applications in electronics, optoelectronics, magnetic, energy, and beyond.

The primary objective of this Special Issue is to stimulate further discussions, collaborations, and innovations in this rapidly evolving field. By fostering an environment of knowledge exchange and collaboration, we aim to push the boundaries of what is possible with 2D materials and inspire breakthroughs in device applications.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Aiqun Liu

1. Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong, China  
2. School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798, Singapore

## Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.

**Journal Rank:** JCR - Q2 (*Physics, Applied*) / CiteScore - Q2 (*Mechanical Engineering*)

## Contact Us

---

*Micromachines* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/micromachines](http://mdpi.com/journal/micromachines)  
[micromachines@mdpi.com](mailto:micromachines@mdpi.com)  
[X@micromach\\_mdpi](https://twitter.com/micromach_mdpi)